

REMARKS

This amendment is in response to the Office Action of December 20, 2007 in which claims 1-24 were rejected.

Claims 1-4, 7-12, 14, and 17-24 are rejected under 35 U.S.C. § 103(a) as being obvious over US 6,771,778 (*Kirkeby*) in view of US 2002/0154783 (*Fincham*).

The Examiner admits correctly that even though *Kirkeby* relates processing of stereo signals in headphone listening, *Kirkeby* fails to disclose the features of forming a separate monophonic signal path in order to equalize a frequency spectrum of a monophonic component of the left and right channel output signals by at least extracting from the left and right channel input signals and at least substantially monophonic signal component contained in said signals. However, the Examiner argues that these features are known from US 2002/0154783 (*Fincham*).

Fincham discloses a sound reproduction system particularly designed for surround sound systems. The system is particularly meant for creating a low-frequency (bass) boost e.g. in a situation when 5.1 surround format audio source is played on a 7.1 surround system, whereby identical monaural signals are fed to the “missing” two di-polar radiating speakers (see Figs. 1-7), which may cause various anomalies in the sound image. Thus, a sound processor is used for deriving a cancellation signal from the difference between a left-right pair of channels. The cancellation signal is further processed and added to the left channel, and in opposite polarity, to the right channel, thereby enhancing the stability of the stereo sound image.

Fincham is a remote prior art, which relates to sound reproduction through loudspeakers, not to optimizing the sound for headphones. A skilled person appreciates that audio signal processing methods, especially spatializing, designed for loudspeaker reproduction are not generally applicable in headphones reproduction.

Especially, *Fincham* does not teach to process the monophonic signal component of a stereo signal (which is common for both the left channel and the right channel), which is the basic idea underlying the present invention, but rather a

difference signal 941 (i.e. the signal difference between the left channel and the right channel). The independent claims 1, 9, 19, 21 and 23 have been amended to make this explicit. Support may be found at page 5, lines 14-17, corresponding to paragraph [0015] on page 2 of the publication of the present application (US 2004/0136544).

Thus, contrary to the Examiner assertions, even a combination of *Kirkeby* and *Fincham* does not teach one of the ordinary skill in the art to process the monophonic signal component to obtain a processed monophonic signal component, wherein the processing includes adjustment of the gain of said monophonic signal component, and to combine said processed monophonic signal component with at least one of the left and the right channel output signals.

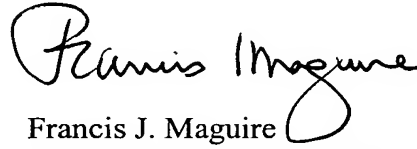
Withdrawal of the 35 U.S.C. § 103(a) rejection of claims 1-4, 7-12, 14 and 17-24 is requested.

Regarding the obviousness rejection of claim 13, it is a dependent claim dependent from claim 12 which in turn is dependent from independent device claim 9. For at least the same reasons as given above in applicant overcoming the obviousness rejection of independent claim 9, claim 13 is also non-obvious over the applied prior art. Withdrawal of the obviousness rejection of claim 13 is requested.

Regarding the obviousness rejection of claims 6-7 and 15-16, claims 6 and 7 are dependent from independent method claim 1 and claims 15 and 16 are dependent from independent device claim 9 and these claims are non-obvious over the applied prior art at least for the same reasons as given above in connection with applicant overcoming the obviousness rejection of claims 1 and 9. Withdrawal of the obviousness rejection of claims 6-7 and 15-16 is requested.

The objections and rejections of the Office Action of December 20, 2007, having been obviated by amendment or shown to be inapplicable, withdrawal thereof is requested and passage of claims 1-24 to issue is earnestly solicited.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "Francis J. Maguire". The signature is fluid and cursive, with a large loop at the end.

Francis J. Maguire
Attorney for the Applicant
Registration No. 31,391

FJM/mo
WARE, FRESSOLA, VAN DER SLUYS
& ADOLPHSON LLP
755 Main Street, P.O. Box 224
Monroe, Connecticut 06468
(203) 261-1234